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ABSTRACT

This paper explores Total Quality Management (TQM) as an organizational theory applied to educational administration of higher education. The first part of the paper describes the principles of TQM, and the second part considers TQM in higher education. The third section is a general conclusion that takes into consideration the leadership challenge of TQM for the organization of higher education institutions. The paper begins with a review of the main ideas of the originators and leaders of TQM: W. Edwards Deming, Joseph Juran, Philip Crosby, and Masaaki Imai. The challenge TQM poses for higher education is that quality is not free. It requires a paradigm shift. TQM is more than a list of points, statistical tools, and slogans. The main transformation for higher education would be a well-educated leadership that understands the requirements of TQM and the needs of the higher education system. (SLD)

Total Quality Management and the Higher Education Environment: Impact on Educational Leadership Theory and Practice

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Introduction

The purpose of this paper is the analysis of Total Quality Management (TQM) as an organizational theory applied to educational administration of higher education. TQM is an important theory of the organizational culture reform movements.

In terms of structure, the paper will be developed in three main parts: first, TQM's principles and higher education (theoretical approach); second, TQM's experiences in the higher education context (practical approach); and, third, a general conclusion taking in consideration the leadership challenge of the TQM's model for the organization of higher educational institutions (practical implications).

However, before starting the study, it is necessary to introduce the paper by briefly reviewing the main ideas of the TQM's classical leaders. In this basic historical background, I will include the main works of W. Edwards Deming, Joseph Juran, Philip Crosby, and Masaaki Imai. This part of the study will give us the setting for the rest of this investigation regarding TQM and higher education.

W. Edwards Deming

Deming is greatly meaningful for the Quality Movement. Deming argues that the basic cause of sickness in American

industry is the failure of top management to manage. For that reason, drastic changes are required. The first step in the transformation is to learn how to change. Deming's 14 points are the basis for transformation of American industry:

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive.

2. Adopt the new philosophy. We are in a new economic age. Western management must take on leadership.

3. Cease dependence on inspection to achieve quality. Building quality into the product is in the first place.

4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. Institute training on the job. The new competitive environment requires qualified human resources.

7. Institute leadership. The aim of supervision should be help people to do a better job. Supervision of management is in need of overhaul.

8. Drive out fear, so that every one may work effectively for the company. Create an environment of trust.

9. Break down barriers between departments. People in different areas must work as a team in order to foresee problems encountered with the product or service.

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Low quality and low productivity belong to the system and not to the work force.

11. Eliminate management by objective. Eliminate management by numbers. Substitute leadership.

12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job (Deming, 1986).

A very important concern for Deming is the consumer. Deming believes that the consumer is the most important part of the production line or service. This reminds us the necessity to study the needs of the consumer.

Deming statement about leadership is clear. The aim of leadership should be to improve quality. The leader has responsibility to improve the system on a continuing basis. A leader, instead of being a judge, will be a colleague, counseling and leading his people on a day-to-day basis, learning from them and with them. Everybody must be on a team to work for improvement of quality (Deming, 1986).

Joseph Juran

For Juran, quality is a continuing revolution. For him, the Japanese revolution in quality was based on the creation of unprecedented strategies as upper management in charge, training for all functions and at all levels, continuous quality improvement, and workforce participation through Quality Control circles (Juran, 1989).

Juran explains that a customer is anyone who receives or is affected by the product or process. In this sense, customers may be external (clients of the company) or internal (members of the company). The idea of internal customer has be discover and emphasized in the companies, because it gives a different understanding of the work processes.

Also, Juran has a trilogy for managing quality. The quality management is done by the same three traditional

management processes of planning, control, and improvement (Juran, 1989).

1. Quality planning is the activity of developing the products and processes required to meet customers' needs.
2. Quality control is a process that consists of the following steps: evaluate actual quality performance, compare actual performance to quality goals, and act on the differences.
3. Quality improvement is a process that constitutes the means of raising quality performance to unprecedented levels (breakthrough).

Philip Crosby

Crosby has his own fourteen steps of quality improvement. Crosby includes among them as important features the management commitment, quality improvement teams, measurement of the processes, zero-defects planning, employee education, error-cause removal, and quality councils.

Next, Crosby mentions that troubled organizations have in common that management does not provide a clear performance standard or definition of quality, so the employees each develop their own (Crosby, 1984).

Crosby states that quality management is a systematic way of guaranteeing that organized activities happen the way they are planned. It is a management discipline concerned with preventing problems from occurring by creating the attitudes and controls that make prevention possible.

Crosby mentions the importance of leadership. Crosby argues that the skills of leadership include issues such as listening, cooperating, helping, transmitting, creating, implementing, learning, leading, following, and pretending. Leaders communicate by giving understandable direction and by setting evident example.

Leading means stating objectives in a way that is precisely understood, ensuring the commitment of individuals to those objectives, defining the methods of measurement, and, then, providing the impetus to get things done. Leadership is a very hard and unending work (Crosby 1979).

Masaaki Imai

"Kaizen strategy" is an important idea in Japanese management. Kaizen means improvement. Kaizen means an ongoing improvement involving everyone --top management, managers, and workers. It is a process-oriented management versus the result-oriented management of Western's societies.

The Kaizen concept stresses management's supportive and

stimulative role for people's efforts to improve the processes.

Kaizen is characterized for its adaptability, teamwork, system's approach, attention to details, people-oriented, open and shared information, builds on existing technology, cross-functional organization, and comprehensive feedback (Imai, 1986).

Kaizen's introduction and direction should be top-down. Nevertheless, the suggestions for KAIZEN should be bottom-up, since the best specific suggestions for improvement usually come from the people closest to the problem. As a result, the Kaizen strategy calls for both top-down and bottom-up approaches.

Imai (1986) understands that Kaizen is applicable in educational systems. These institutions may lack the profit motive, but the Kaizen idea remains a valid criterion for checking progress.

TQM Principles and Higher Education

Starting this section, it is relevant to make a brief analysis of the general situation of higher education in the United States. Colleges and universities today are under increasing pressures as a result of both external and internal forces. The environment is changing rapidly, and

higher education finds that its management structure and its culture make change very difficult.

Tuttle (1994) states that there are many important external forces for change: the reduction in the public funds received or in the rate at which the funds received increase; competition for faculty, a situation that leads to difficulties in retaining existing faculty in fields where there are employment options; competition for students, not only at the initial recruitment, but its retention; and, finally, pressures from employers, claiming for better qualified graduates of the institutions of higher education.

The internal forces for change are that the cost reductions lead to problems with faculty and staff. Faculty and staff are concerned with issues like the absence of salary increases and low empowerment at their work. Second, problems with students, regarding the reduced availability of courses, reduced library hours, and increased tuition, parking, and residence hall fees.

Lozier and Teeter (1993) states that colleges and universities are facing important change in the way they look and think about themselves and the way they function. This change focuses on the pursuit of quality, consciously and by systematic means. In that sense, these authors think that TQM is a possible avenue for higher education.

Lozier and Teeter (1993) discusses six foundations of TQM for colleges and universities. These foundations are creating a vision, establishing a mission, improving the process continuously, using systematic analysis, promoting participation, and recognizing the university as a system. These authors believe that these six foundations for the pursuit of quality can have a powerful impact on efforts to improve higher education.

Westerman (1994) explains that there are two basic administrative goals that could be improve using TQM: first, the improvement in the quality of life for students, in order to make learning easier; and, second, the improvement of the working environment for faculty, in order to make teaching and research easier.

Sherr and Lozier (1991) remarks that TQM could be relevant for the effectiveness of the administrative work of educational institutions; besides, adopting management concepts and practices developed in the business world is not new to higher education.

Sherr and Lozier (1991) states that the basic theory of TQM can be focus on five areas: mission and customer focus; systematic approach to operations; vigorous development of human resources; long-term thinking; and, commitment. These

five points form a complete theoretical system, and one cannot fully understand any one point without the other four.

Also, other authors as Chaffee and Sherr (1992), Cornesky et al (1992), and Marchese (1993), have a good opinion regarding the use of TQM in higher education. Chaffee and Sherr (1992) review the ideas of total quality and then relate those concepts to how they can be applied to both the academic and administrative areas of the institution. Cornesky et al (1992) applies the fourteen points of Edward Deming to improve quality in colleges and universities. Ted Marchese (1993) argues that TQM has six important ideas for higher education such as customer focus; continuous improvement; management by fact; benchmarking; human resources approach; and, organizational structures.

Seymour (1993) dedicated a complete study about causing quality in higher education. TQM helps the educational institutions to achieve quality in a systematic way. Seymour understands that any organization is a multitude of processes; that is, a series of activities performed to achieve specific outcomes.

In that sense, quality management experts suggest that 30 to 40 percent of service organizations' operating costs result from unhealthy processes. Healthy processes are (a) effective, because they meet customers' requirements; (b)

efficient, because they use minimal time and resources; (c) under control, because those processes are documented and well defined; and (d) adaptable, because they are able to respond to changing conditions.

TQM Experiences in Higher Education

In this section, I will study TQM from the experiences of colleges and universities of the United States. It will be helpful in order to understand the implementation process of TQM in the organizational structures of Higher Education. A starting point for the discussion of this section will be the examination of TQM's leadership in higher education.

The literature today is conclusive about the importance of leadership in an organization: positive change to strengthen an organization will not occur without it. Leadership is the foundation of the change process. It is the catalyst that aids each member of the institution in adopting new behaviors that rightly define what quality is and what customer means for institutional vitality and growth (Leffel et al, 1991).

First, a mind-set revolution must occur for each and every manager; second, the value of leadership must be demonstrated from top to bottom within the institution by every manager; third, every manager must have the opportunity

to be exposed to and learn from success; and, fourth, the university must provide formal professional development opportunities (Leffel et al, 1991).

Westerman (1994) wrote about how total quality management initiatives can inspire leadership. This author understands that a new concept of a leader as a coach, cheerleader, and guide, as articulated in the various quality management philosophies promoted by W. Edward Deming, Joseph Juran, Philip Crosby, and others, have emerged. The idea that everyone is a leader, does not mean chaos, just that there are different levels of leadership. Each employee can have a defined piece of the leadership pie and take responsibility within that area.

Nevertheless, the next and important question is how to begin the transformation of an institution. Westerman (1994) argues that the beauty of TQM is that when employees understand its principles, they see the value to their own working life and will buy in. Westerman believes that the more realistic method is what she calls the "ripple effect," that involves a progressive and gradual disclosure of TQM's concepts and procedures. It is the way it has been introduced at Fordham University, beginning in the Graduate Business School, with the support of the dean and faculty who

teach TQM, and gradually spreading through the rest of the university.

Westerman's method of implementation of TQM (1994) begins with the interest of a few upper and middle managers who learn about TQM by reading, attending seminars and conferences, and calling on outside consultants for in-house training. They begin to implement these new ideas and gradually the ideas spread. They are called local champions; they are in charge of the leadership in the transformational process of the TQM's initiative.

In 1986, Delawere County Community College (DCCC) became one of the first colleges in the country to adopt Total Quality Management and to see beyond TQM's applications in manufacturing to its potential for transforming an educational environment. Using the philosophy and tools of TQM, the college administration established goals, outlined strategies for accomplishing these goals, set priorities, and developed methods for measuring the efficiency and effectiveness of TQM (Entner, 1993).

At the University of Kansas (UK), the process follows the basic structure of continuous process improvement: understand the process, characterize the process, simplify the process, and, if successful, institutionalize the changes. Eakin (1993) explained some lessons learned at the

University of Kansas. The primarily lesson learned at UK was that team members should be exposed to the concepts and principles of TQM before they ever serve on a team. The institutional workshops on TQM's principles should be carefully prepared, executed, and evaluated.

In 1986, Fox Valley Technical College (FVTC) began applying Total Quality Management principles and tools to its management, service, and instructional processes. Over the last years, FVTC examined and improved numerous educational processes. These improvements resulted in more satisfied customers. Furthermore, as a result, these organizational changes often reduced the costs of the college (Tyler, 1993).

In 1990, the vice-president for finance and administration at Oregon State University (OSU) decided to pilot a Total Quality Management initiative in administrative areas of the university. Encouraging early results inspired the university to extend implementation to additional areas (Howard, 1993).

Oregon State University (OSU), like other institutions seriously committed to continuous quality improvement, needed first to define the appropriate level of administrative coordination and support. OSU created a permanent position responsible for providing university-wide administrative and technical support for the implementation of TQM: the

"quality manager" in the department of human resources, with dual reporting responsibility to the director of human resources and vice-president for finance and administration (Howard, 1993).

Training played a key role in the implementation process. The training program at OSU had four major components: introductory training, strategic planning, team learning, and special topics. Also, communicating TQM accomplishments to administrators, the campus, and the community are important tasks to be taken in consideration by the leaders of the organizational change (Howard, 1993).

Winter (1993) explains that the University of Illinois at Chicago (UIC) focused initially on administrative units. Besides, they thought that it was imperative for top management both to be involved in and to demonstrate commitment to the quality improvement process.

Training played a major role in the process. In UIC, they established four training programs: (1) basic concepts of quality improvement; (2) leader-facilitator training; (3) team-member training; and, (4) leadership training (Winter, 1993).

After designing the training programs, UIC developed a plan to guide the transformation of the university into a quality organization. At UIC, they identified four distinct

stages: (1) create awareness in the university community about the quality improvement (QI) process and provide opportunities for training and organizing for quality; (2) establish initial teams, provide appropriate training and logistical support, develop employee recognition programs, and design communication systems; (3) adopt the QI process by establishing an infrastructure, increasing the number of teams, and beginning a review of mission statements, policies, and procedures to ensure congruence with the principles of QI; (4) integrate the QI process into the organization by modifying such processes as resource allocations, job requirement's performance evaluations, strategic planning, and salary administration (Winter, 1993).

Conclusion: The Challenge for Educational Leadership

Quality is not free. The quality must be created from systems and processes that are currently determined down by scrap, rework, complexity, breakdown, and delays. Such a paradigm shift requires an investment of time, energy, and money. The organization must rethink its aim; the design and management of processes must be changed; new reward systems and communication efforts must be initiated. The culture needs to be transformed. Nevertheless, cultural transformation does not come cheap.

One of the big barriers for the implementation process of TQM is real leadership. The leadership in higher education shows a disturbing tendency to think that, just because people are talking about it, they are doing it. Unfortunately, speeches do not change an organizational culture.

Next, the organization unleashes TQM. There is an investment in developing an office of quality that has a director, a secretary, telephones, and a letterhead. Then, the training begins at the institution. Teams are formed, meetings are held, and reports are written. A quality newsletter may be produced. The problem is that all this activity can make it easy to lose sight of the aim: to improve performance. Mean become ends, and the notion of a return on the investment in quality becomes lost in all the memos and meetings. The result is that the number of people trained emerges as a measure of success for the organization, while other, more important metrics involving customer satisfaction, cycle time, and costs fade into the background (Seymour, 1994).

Leadership plays a big role in the organizational transformation, for bad or for good. The leaders at the organizations shape the vision to get there. Leaders must know a great deal about the risks, costs, and benefits

associated with the new organizational direction. They must possess a bone-deep understanding of the journey's pathway to organizational culture change and improvement.

The leader has to deal with the cost-return equation. Regarding the investment side of the equation, leaders have to understand which materials, how much time, and which training are required to the projects of process improvement. Concerning the return side of the equation, leaders have to comprehend which are the real costs and benefits associated with the TQM's initiative at the organization of higher education. TQM involves the active management of costs and benefits.

The leader must have a full understanding of the dynamics of implementation. If leaders do not invest their time in knowledge development, in planning and articulating the change strategy, the philosophy is poorly operationalized. What it is needed is a methodology to make quality happen. There must be a strategic perspective, fueled by political courage, to move from the theory of TQM to the practice of never-ending improvement of work processes.

Nevertheless, you cannot manage what you do not measure. In this sense, it seems reasonable to expect leaders to be able to describe the vital signs of their

organizations. They should be able to quantify how well the activities that go into a process or the outputs of a process achieve a specified aim (operational indicators). However, it is important to do not try to quantify the things that are unknowable. The general rule is that there are quantifiable vital signs that should be generated: performance measures must be identified whenever possible (Seymour, 1994).

TQM is much more than a list of points, a dozen or so of statistical tools, and slogans that exhort employees to improve their work performance. It is a paradigm shift. At the end of the paper, it is clear-sighted that the main prerequisite for the transformation of higher education is a well-educated leadership. TQM is a possible avenue that has to be determined by the necessities of a particular educational institution.

A this point of the paper, it should be remarked that without penetrating understanding of organizational theory and leadership, the educational system will remain in the traditional Taylorism of the beginning of the century. Taylorism was a particular response at the proper time for the management of organizations.

Now, we are living in a different moment. There are new challenges in the post-industrial context at the end of the twentieth century. Once again, along with an environment

of rapid technological changes, the leaders of the higher educational institutions have to exercise their organizational competence and skills for the best interest of the American society. The starting point will be to recognize and understand that the dynamic and complex conditions of the new circumstances are not a threat: they are an opportunity for the improvement of the higher educational system!

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